

AN INQUIRY  
INTO  
THE DISTINCTIVE CHARACTERISTICS  
OF  
THE ABORIGINAL RACE  
OF  
AMERICA.

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NOTE TO THE SECOND EDITION.

THE following Essay was read at the Annual Meeting of the Boston Society of Natural History, on the 27th of April, 1842, and published by direction of the Society. In the present edition I have made a few verbal corrections, and added some collateral facts in an Appendix.

I have taken a rapid glance at what I conceive to be the peculiar traits of the Aboriginal race of America, as embraced in five principal considerations, viz. : their organic, moral, and intellectual characters, their mode of interment, and their maritime enterprise; and from these I have ventured to draw a few definite conclusions. I am aware that it may appear presumptuous to attempt so wide a range within the brief limits of the present occasion, especially as some points can be touched only in the most general manner; but my object has been to dwell rather upon some of these which have hitherto received less attention than they obviously deserve, and which are intimately involved in the present inquiry.

S. G. MORTON.

*Philadelphia*, July 1, 1844.

ON THE

ABORIGINAL RACE OF AMERICA.

ETHNOGRAPHY,—the analysis and classification of the races of men,\*—is essentially a modern science. At a time when Nature in her other departments, had been investigated with equal zeal and success, this alone remained comparatively neglected; and of the various authors who have attempted its exposition during the past and present centuries, too many have been content with closet theories, in which facts are perverted to sustain some baseless conjecture. Hence it has been aptly remarked that Asia is the country of fables, Africa of monsters, and America of systems, to those who prefer hypothesis to truth.

The intellectual genius of antiquity justly excites our admiration and homage; but in vain we search its records for the physical traits of some of the most celebrated nations of past time. It is even yet gravely disputed whether the ancient Egyptians belonged to the Caucasian race or to the Negro; and was it not for the light which now dawns upon us from their monuments and their tombs, this question might remain forever undecided. The present age, however, is marked by a noble zeal for these inquiries, which are daily making man more conversant with the organic structure, the mental character and the national affinities of the various and widely scattered tribes of the human family.

Among these the aboriginal inhabitants of America claim our especial attention. This vast theatre has been thronged, from immemorial time, by numberless tribes which lived only to destroy and be in turn destroyed, without leaving a trace

\* Ethnography may be divided into three branches—1. Physical or Organic Ethnography; 2. Philological Ethnography; and 3. Historical Ethnography.

of their sojourn on the face of the earth. Contrasted with these were a few civilized communities, whose monuments awaken our surprise without unfolding their history; and he who would unravel their mysteries may be compared, in the language of the poets, to a man standing by the stream of time, and striving to rescue from its waters the wrecked and shattered fragments which float onward to oblivion.

It is not my present intention even to enumerate the many theories which have been advanced in reference to the origin of the American nations; although I may, in the sequel, inquire whether their genealogy can be traced to the Polynesians or Mongolians, Hindoos, Jews or Egyptians. Nor shall I attempt to analyse the views of certain philosophers who imagine that they have found not only a variety of races, but several *species* of men among the aborigines of this continent. It is chiefly my intention to produce a few of the more strikingly characteristic traits of these people to sustain the position that all the American nations, excepting the Eskimaux, are of one race, and that this race is peculiar, and distinct from all others.

1. *Physical Characteristics.* It is an adage among travelers that he who has seen one tribe of Indians, has seen all, so much do the individuals of this race resemble each other, notwithstanding their immense geographical distribution, and those differences of climate which embrace the extremes of heat and cold. The half-clad Fuegian, shrinking from his dreary winter, has the same characteristic lineaments, though in an exaggerated degree, as the Indians of the tropical plains; and these again resemble the tribes which inhabit the region west of the Rocky Mountains, those of the great valley of the Mississippi, and those again which skirt the Eskimaux on the North. All possess alike the long, lank, black hair, the brown or cinnamon colored skin, the heavy brow, the dull and sleepy eye, the full and compressed lips, and the salient but dilated nose. These traits, moreover, are equally common to the savage and civilized nations; whether they in-

habit the margins of rivers and feed on fish, or rove the forest and subsist on the spoils of the chase.

It cannot be questioned that physical diversities do occur, equally singular and inexplicable, as seen in different shades of color, varying from a fair tint to a complexion almost black; and this too under circumstances in which climate can have little or no influence. So also in reference to stature, the differences are remarkable in entire tribes which, moreover, are geographically proximate to each other. These facts, however, are mere exceptions to a general rule, and do not alter the peculiar physiognomy of the Indian, which is as undeviatingly characteristic as that of the Negro; for whether we see him in the athletic Charib or the stunted Chayma, in the dark Californian or the fair Borroa, he is an Indian still, and cannot be mistaken for a being of any other race.

The same conformity of organization is not less obvious in the osteological structure of these people, as seen in the squared or rounded head, the flattened or vertical occiput, the high cheek bones, the ponderous maxillæ, the large quadrangular orbits, and the low, receding forehead. I have had opportunity to compare nearly four hundred crania, derived from tribes inhabiting almost every region of both Americas, and have been astonished to find how the preceding characters, in greater or less degree, pervade them all.

This remark is equally applicable to the ancient and modern nations of our continent; for the oldest skulls from the Peruvian cemeteries, the tombs of Mexico and the mounds of our own country, are of the same type as the heads of the most savage existing tribes.\* Their physical organization proves the origin of one to have been equally the origin of all. The various civilized nations are to this day represented by their lineal descendants who inhabit their ancestral seats, and differ in no exterior respect from the wild and uncultivated Indians; at the same time, in evidence of their lineage, Clavigero and other historians inform us, that the Mexicans and Peruvians yet possess a latent mental superiority which

\*See Appendix, No. 1.—Crania Americana, *passim*.

has not been subdued by three centuries of despotism. And again, with respect to the royal personages and other privileged classes, there is indubitable evidence that they were of the same native stock, and presented no distinctive attributes excepting those of a social or political character.

The observations of Molina and Humboldt are sometimes quoted in disproof of this pervading uniformity of physical characters. Molina says that the difference between an inhabitant of Chili and a Peruvian is not less than between an Italian and a German; to which Humboldt adds, that the American race contains nations whose features differ as essentially from one another as those of the Circassians, Moors and Persians. But all these people are of one and the same *race*, and readily recognized as such, notwithstanding their differences of feature and complexion;\* and the American nations present a precisely parallel case.

I was at one time inclined to the opinion that the ancient Peruvians, who inhabited the islands and confines of the Lake Titicaca, presented a congenital form of the head entirely different from that which characterizes the great American race; nor could I at first bring myself to believe that their wonderfully narrow and elongated crania, resulted solely from artificial compression applied to the rounded head of the Indian. That such, however, is the fact has been indisputably proved by the recent investigations of M. D'Orbigny. This distinguished naturalist passed many months on the ~~able~~ land of the Andes which embraces the region of these extraordinary people, and examined the dessicated remains of hundreds of individuals in the tombs where they have lain for centuries. M. D'Orbigny remarked that while many of the heads were deformed in the manner to which we have adverted, others differed in nothing from the usual conformation. It was also observed that the flattened skulls were uniformly those of men, while those of the women remained unaltered; and again, that the most elongated heads were

\*A portion of the Moorish population of Africa is a very mixed race of Arabs, Berbers, Negroes, &c.

preserved in the largest and finest tombs, shewing that this cranial deformity was a mark of distinction. But to do away with any remaining doubt on this subject, M. D'Orbigny ascertained that the descendants of these ancient Peruvians yet inhabit the land of their ancestors, and bear the name of *AYMARAS*, which may have been their primitive designation; and lastly, the modern Aymaras resemble the common *Quichua* or Peruvian Indians in every thing that relates to physical conformation, not even excepting the head, which, however they have ceased to mould artificially.\*

Submitted to the same anatomical test, the reputed giant and dwarf races of America prove to be the mere inventions of ignorance or imposition. A careful inspection of the remains of both, has fully satisfied me that the asserted gigantic form of some nations has been a hasty inference on the part of unpractised observers; while the so-called pygmies of the valley of the Mississippi were mere children, who, for reasons not wholly understood, were buried apart from the adult people of their tribe.†

Thus it is that the American Indian, from the southern extremity of the continent to the northern limit of his range, is the same exterior man. With somewhat variable stature and complexion, his distinctive features, though variously modified, are never effaced; and he stands isolated from the rest of mankind, identified at a glance in every locality, and under every variety of circumstance; and even his desiccated remains which have withstood the destroying hand of time, preserve the primeval type of his race, excepting only when art has interposed to pervert it.

2. *Moral Traits.* These are, perhaps, as strongly marked as the physical characteristics of which we have just spoken; but they have been so often the subject of analysis as to claim only a passing notice on the present occasion. Among the most prominent of this series of mental operations is a sleepless caution, an untiring vigilance, which presides over every action and masks every motive. The Indian says nothing and

\* See Appendix, No. 2.

† See Appendix, No. 3.

does nothing without its influence: it enables him to deceive others without being himself suspected; it causes that proverbial taciturnity among strangers which changes to garrulity among the people of his own tribe; and it is the basis of that invincible firmness which teaches him to contend unrepiningly with every adverse circumstance, and even with death in its most hideous forms.

The love of war is so general, so characteristic, that it scarcely calls for a comment or an illustration. One nation is in almost perpetual hostility with another, tribe against tribe, man against man; and with this ruling passion are linked a merciless revenge and an unsparing destructiveness. The Chickasaws have been known to make a stealthy march of six hundred miles from their own hunting grounds, for the sole purpose of destroying an encampment of their enemies. The small island of Nantucket, which contains but a few square miles of barren sand, was inhabited at the advent of the European colonies by two Indian tribes, who sometimes engaged in hot and deadly feud with each other. But what is yet more remarkable, the miserable natives of Terra del Fuego, whose common privations have linked them for a time in peace and fellowship, become suddenly excited by the same inherent ferocity, and exert their puny efforts for mutual destruction. Of the destructive propensity of the Indian, which has long become a proverb, it is almost unnecessary to speak; but we may advert to a forcible example from the narrative of the traveller Hearne, who accompanied a trading party of northern Indians on a long journey; during which he declares that they killed every living creature that came within their reach; nor could they even pass a bird's nest without slaying the young or destroying the eggs.

That philosophic traveller, Dr. Von Martius, gives a graphic view of the present state of natural and civil rights among the American aborigines. Their sub-division, he remarks, into an almost countless multitude of greater and smaller groups, and their entire exclusion and excommunication with regard to each other, strike the eye of the observer like the



fragments of a vast ruin, to which the history of the other nations of the earth furnishes no analogy. "This disruption of all the bands by which society was anciently held together, accompanied by a Babylonish confusion of tongues, the rude right of force, the never ending tacit warfare of all against all, springing from that very disrupture,—appear to me the most essential, and, as far as history is concerned, the most significant points in the civil condition of the aboriginal population of America."

It may be said that these features of the Indian character are common to all mankind in the savage state. This is generally true; but in the American race they exist in a degree which will fairly challenge a comparison with similar traits in any existing people; and if we consider also their habitual indolence and improvidence, their indifference to private property, and the vague simplicity of their religious observances,—which, for the most part, are devoid of the specious aid of idolatry,—we must admit them to possess a peculiar and eccentric moral constitution.

If we turn now to the demi-civilized nations, we find the dawn of refinement coupled with those barbarous usages which characterize the Indian in his savage state. We see the Mexicans, like the later Romans, encouraging the most bloody and cruel rites, and these, too, in the name of religion, in order to inculcate hatred of their enemies, familiarity with danger, and contempt of death; and the moral effect of this system is manifest in their valorous, though unsuccessful, resistance to their Spanish conquerors.

Among the Peruvians, however, the case was different. The inhabitants had been subjugated to the Incas by a combined moral and physical influence. The Inca family were looked upon as beings of divine origin. They assumed to be the messengers of heaven, bearing rewards for the good, and punishment for the disobedient, conjoined with the arts of peace and various social institutions. History bears ample testimony that these specious pretences were employed first to captivate the fancy and then to enslave the man. The fami-

liar adage that "knowledge is power," was as well understood by them as by us; learning was artfully restricted to a privileged class; and the genius of the few soon controlled the energies of the many. Thus the policy of the Incas inculcated in their subjects an abject obedience which knew no limit. They endeavored to eradicate the feeling of individuality; or, in other words, to unite the minds of the plebeian multitude in a common will, which was that of their master. Thus when Pizarro made his first attack on the defenceless Peruvians in the presence of their Inca, the latter was borne in a throne on the shoulders of four men; and we are told by Herrera that while the Spaniards spared the Sovereign, they aimed their deadly blows at his bearers, who, however, never shrunk from their sacred trust; for when one of their number fell, another immediately took his place; and the historian declares that if the whole day had been spent in killing them, others would still have come forward to the passive support of their master. In fact, what has been called the paternal government of the Incas was strictly such; for their subjects were children, who neither thought nor acted except at the dictation of another. Thus it was that a people whose moral impulses are known to have differed in little or nothing from those of the barbarous tribes, were reduced, partly by persuasion, partly by force, to a state of effeminate vassalage not unlike that of the modern Hindoos. Like the latter, too, they made good soldiers in their native wars, not from any principle of valor, but from the sentiment of passive obedience to their superiors; and hence, when they saw their monarch bound and imprisoned by the Spaniards, their conventional courage at once forsook them; and we behold the singular spectacle of an entire nation prostrated at a blow, like a strong man whose energies yield to a seemingly trivial but rankling wound.

After the Inca power was destroyed, however, the dormant spirit of the people was again aroused in all the moral vehemence of their race, and the gentle and unoffending Peruvian became transformed into the wily and merciless savage. Every

one is familiar with the sequel. Resistance was too late to be availing, and the fetters to which they had confidently submitted were soon riveted forever.

As we have already observed, the Incas depressed the moral energies of their subjects in order to secure their own power. This they effected by inculcating the arts of peace, prohibiting human sacrifices, and in a great measure avoiding capital punishments; and blood was seldom spilt excepting on the subjugation of warlike and refractory tribes. In these instances, however, the native ferocity of their race broke forth even in the bosom of the Incas; for we are told by Garcilaso, the descendant and apologist of the Peruvian kings, that some of their wars were absolutely exterminating; and among other examples he mentions that of the Inca Yupanqui against the province of Collao, in which whole districts were so completely depopulated that they had subsequently to be colonized from other parts of the empire: and in another instance the same unsparing despot destroyed twenty thousand Caranques, whose bodies he ordered to be thrown into an adjacent lake, which yet bears the name of the Sea of Blood. In like manner, when Atahualpa contested the dominion with Guascar, he caused the latter, together with thirty of his brothers, to be put to death in cold blood, that nothing might impede his progress to the throne.

We have thus endeavored to shew that the same moral traits characterize all the aboriginal nations of this continent, from the humanized Peruvian to the rudest savage of the Brazilian forest.

3. *Intellectual Faculties.* It has often been remarked that the intellectual faculties are distributed with surprising equality among individuals of the same race who have been similarly educated, and subjected to the same moral and other influences: yet even among these, as in the physical man, we see the strong and the weak, with numberless intermediate gradations. This equality is infinitely more obvious in savage than in civilized communities, simply because in th

former the condition of life is more equal; whence it happens that in contrast to a single master mind, the plebeian multitude are content to live and die in their primitive ignorance and inferiority.

This truth is obvious at every step of the present investigation; for of the numberless hordes which have inhabited the American continent, a fractional portion only has left any trace of refinement. I venture here to repeat my matured conviction that as a race they are decidedly inferior to the Mongolian stock. They are not only averse to the restraints of education, but seem for the most part incapable of a continued process of reasoning on abstract subjects. Their minds seize with avidity on simple truths, while they reject whatever requires investigation or analysis. Their proximity for more than two centuries to European communities, has scarcely effected an appreciable change in their manner of life; and as to their social condition, they are probably in most respects the same as at the primitive epoch of their existence. They have made no improvement in the construction of their dwellings, except when directed by Europeans who have become domiciliated among them; for the Indian cabin or the Indian tent, from Terra del Fuego to the river St. Lawrence, is perhaps the humblest contrivance ever devised by man to screen himself from the elements. Nor is their mechanical ingenuity more conspicuous in the construction of their boats; for these, as we shall endeavor to show in the sequel, have rarely been improved beyond the first rude conception. Their imitative faculty is of a very humble grade, nor have they any predilection for the arts or sciences. The long annals of missionary labor and private benefaction, present few exceptions to this cheerless picture, which is sustained by the testimony of nearly all practical observers. Even in those instances in which the Indians have received the benefits of education, and remained for years in civilized society, they lose little or none of the innate love of their national usages, which they almost invariably resume when left to choose for themselves.\*

\* *Crania Americana*, p. 81.

Such is the intellectual poverty of the barbarous tribes; but contrasted with these, like an oasis in the desert, are the demi-civilized nations of the new world; a people whose attainments in the arts and sciences are a riddle in the history of the human mind. The Peruvians in the south, the Mexicans in the north, and the Muyscas of Bogota between the two, formed these contemporary 'centres of civilization, each independent of the other, and each equally skirted by wild and savage hordes. The mind dwells with surprise and admiration on their cyclopean structures, which often rival those of Egypt in magnitude;—on their temples, which embrace almost every principle in architecture except the arch alone;—and on their statues and bas-reliefs which, notwithstanding some conventional imperfections, are far above the rudimentary state of the arts.\*

I have elsewhere ventured to designate these demi-civilized nations by the collective name of the *TOLTECAN FAMILY*; for although the Mexican annals date their civilization from a period long antecedent to the appearance of the Toltecas, yet the latter seem to have cultivated the arts and sciences to a degree unknown to their predecessors. Besides, the various nations which at different times invaded and possessed themselves of Mexico, were characterized by the same fundamental language and the same physical traits, together with a strong analogy in their social institutions: and as the appearance of the Incas in Peru was nearly simultaneous with the dispersion of the Toltecas, in the year 1050 of our era, there is reasonable ground for the conjecture that the Mexcans and Peruvians were branches of the same Toltecan stock

\*I cannot omit the present occasion to express my admiration of the recent discoveries of Mr. Stephens among the ruined cities of Central America and Yucatan. The spirit, ability, and success which characterize these investigations, are an honor to that gentleman and to his country; and they will probably tend more than the labors of any other person to unravel the mysteries of American Archæology. Similar in design to these are the researches of my distinguished friend the Chevalier Freidrichthal, the result of whose labors, though not yet give to the world, are 'replete with facts of the utmost importance to' the present inquiry.

We have alluded to a civilization antecedent to the appearance of the Incas, and which had already passed away when they assumed the government of the country. There are traditional and monumental evidences of this fact which can leave no doubt on the mind, although of its date we can form no just conception. It may have even preceded the Christian era, nor do we know of any positive reasons to the contrary. Chronology may be called the crutch of history; but with all its imperfections it would be invaluable here, where no clue remains to unravel those mysterious records which excite our research but constantly elude our scrutiny. We may be permitted, however, to repeat what is all-important to the present inquiry, that these Ancient Peruvians were the progenitors of the existing Aymara tribes of Peru, while these last are identified in every particular with the people of the great Inca race. All the monuments which these various nations have left behind them, over a space of three thousand miles, go also to prove a common origin, because, notwithstanding some minor differences, certain leading features pervade and characterize them all.

Whether the hive of the civilized nations was, as some suppose, in the fabled region of Aztlan in the north, or whether, as the learned Cabrera has endeavored to shew, their native seats were in Chiapas and Guatemala, we may not stop to inquire; but to them, and to them alone, we trace the monolithic gateways of Peru, the sculptures of Bogota, the ruined temples and pyramids of Mexico and the mounds and fortifications of the valley of the Mississippi.

Such was the Toltecan Family; and it will now be inquired how it happens that so great a disparity should have existed in the intellectual character of the American nations, if they are all derived from a common stock, or in other words belong to the same race? How are we to reconcile the civilization of the one with the barbarism of the other? It is this question which has so much puzzled the philosophers of the past three centuries, and led them, in the face of facts, to insist on a plurality of races. We grant the seeming

the Indian with no additional means of contending with the watery element ; and his log canoe and boat of birch bark, are precisely the same as at the landing of Columbus.

5. *Manner of Interment.* Veneration for the dead is a sentiment natural to man, whether civilized or savage: but the manner of expressing it, and of performing the rites of sepulture, differ widely in different nations. No offence excites greater exasperation in the breast of the Indian than the violation of the graves of his people ; and he has even been known to disinter the bones of his ancestors, and bear them with him to a great distance, when circumstances have compelled him to make a permanent change of residence.

But the *manner* of inhumation is so different from that practised by the rest of mankind, and at the same time so prevalent among the American nations, as to constitute another means of identifying them as parts of a single and peculiar race. This practice consists in burying the dead in the *sitting posture*; the legs being flexed against the abdomen, the arms also bent, and the chin supported on the palms of the hands. The natives of Patagonia, Brazil, and Guayana ; the insular and other Charibs, the Florida tribes, the great chain of Lenapé nations, the inhabitants of both sides of the Rocky mountains, and those also of Canada and the vast Northwestern region, all conform, with occasional exceptions, to this conventional rite. So also with the demi-civilized communities from the most distant epochs ; for the ancient Peruvians, to whom we have already so frequently referred, possessed this singular usage, as is verified by their numberless remains in the sepulchres of Titicaca. They did not, however, bury their dead, but placed them on the floors of their tombs, seated, and sewed up in sacks. The later Peruvians of the Inca race followed the same custom, sometimes inhuming the body, at others placing it in a tower above ground. Garcilaso de la Vega informs us, that in the year 1560 he saw five embalmed bodies of the royal family, all of whom were seated in the Indian manner, with their hands crossed upon

the breast, and their heads bent forward. So also the Mexicans from the most ancient time had adopted the same usage, which was equally the privilege of the king and his people. The most remarkable exception to the practice in question, is that in which the body is dissected before interment, the bones alone being deposited in the earth. This extraordinary rite has prevailed among various tribes from the southern to the northern extremity of their range, in Patagonia, Brazil, Florida, and Missouri, and indeed in many intervening localities; but even in these instances, the bones are often retained in their relative position by preserving the ligaments, and then interred in the attitude of a person seated. An example among very many others is recorded by the Baron Humboldt, in his visit to a cavern-cemetery of the Atures Indians, at the sources of the Orinoco; wherein he found hundreds of skeletons preserved each in a separate basket, the bones being held together by their natural connexions, and the whole disposed in the conventional posture of which we are speaking.

I am well aware that this practice has been noticed by somenavigators among the Polynesian islands; the instances, however, appear so few as rather to form exceptions to the rule, like those of the Nassamones of northern Africa: but I have sought for it in vain among the continental Asiatics, who, if they ever possessed it, would have yet preserved it among some at least of their numberless tribes.

After this rapid view of the principal leading characteristics of the American race, let us now briefly inquire whether they denote an exotic origin; or whether there is not internal evidence that this race is as strictly aboriginal to America as the Mongolian is to Asia, or the Negro to Africa.

And first, we turn to the Mongolian race, which by a somewhat general consent is admitted to include the Polar nations, and among them the Eskimaux of our continent. It is a very prevalent opinion that the latter people, who obviously belong to the Polar family of Asia, pass insensibly into the American race, and thus form the connecting link between the two. But without repeating what has already been



We shall lastly notice an imaginative classification which separates the aborigines of America into four *species* of men, exclusive of the Eskimaux. This curious but unphilosophical hypothesis has been advanced by M. Bory de St. Vincent, a French naturalist of distinction, who considers the civilized nations to be cognate with the Malays, and designates them by the collective name of the *Neptunian species*; while to his three remaining species,—the Columbian, the American, and the Patagonian, he assigns certain vague geographical limits, without establishing any distinctive characteristics of the people themselves. The system is so devoid of foundation in nature, so fanciful in all its details, as hardly to merit a serious analysis; and we have introduced it on the present occasion to illustrate the extravagance, and the poverty, of some of the hypotheses which have been resorted to in explanation of the problem before us.

Once for all I repeat my conviction, that the study of physical conformation alone excludes every branch of the Caucasian race from any obvious participation in the peopling of this continent. If the Egyptians,\* Hindoos, Phenicians, or Gauls have ever, by accident or design, planted colonies in America, these must have been, sooner or later, dispersed and lost in the waves of a vast indigenous population. Such we know to have been the fact with the Northmen, whose repeated, though very partial, settlements in the present New England States, from the tenth to the thirteenth centuries, are now matter of history; yet, in the country itself, they have not left a single indisputable trace of their sojourn.

In fine, our own conclusion, long ago deduced from a patient examination of the facts thus briefly and inadequately stated, is, that the American race is essentially separate and peculiar, whether we regard it in its physical, its moral, or its intellectual relations. To us there are no direct or obvious links between the people of the old world and the new; for even admitting the seeming analogies to which we have al-

\* See Appendix No. 4.

luded, these are so few in number and evidently so casual as not to invalidate the main position: and even should it be hereafter shown, that the arts, sciences, and religion of America can be traced to an exotic source, I maintain that the organic characters of the people themselves, through all their endless ramifications of tribes and nations, prove them to belong to one and the same race, and that this race is distinct from all others.

This idea may, at first view, seem incompatible with the history of man, as recorded in the Sacred Writings. Such, however, is not the fact. Where others can see nothing but chance, we can perceive a wise and obvious design, displayed in the original adaptation of the several races of men to those varied circumstances of climate and locality which, while congenial to the one, are destructive to the other. The evidences of history and the Egyptian monuments go to prove that these races were as distinctly stamped three thousand five hundred years ago as they are now; and, in fact, that they are coeval with the primitive dispersion of our species.

## APPENDIX



### No. 1.

On the 6th of July, 1841, I made the following communication to the Academy of Natural Sciences of Philadelphia; and now extract it from the *Proceedings* of the Society of that date :

I submit to the inspection of the members eight adult skulls of the ancient Mexican race, for six of which I am indebted to Don J. Gomez de la Cortina, and for the other two to Dr. John P. Macartney of the city of Mexico. All these crania have been received since the publication of my *Crania Americana*.

The skulls are supposed to be of the following nations :

1. OTOMIES?—Four in number, with the high vertex, flat occiput, great lateral diameter, and broad face, characteristic of the American race. The Otomies preceded the Toltecas, and were the least cultivated of the demi-civilized nations of Anahuac. The largest of these heads gives 92 cubic inches of internal capacity; the smallest, that of a female, only 67.

2. CHECHEMECAN ?—A single skull, of 83 cubic inches of internal capacity. This nation followed the Toltecas in the possession of Mexico in the 11th century of our era. They were nomades and hunters, but rapidly acquired the arts and civilization of their predecessors.
3. TLASCALAN?—A single cranium. These people formed one of the seven tribes who established themselves in Mexico during the Chechemecan monarchy, and are renowned in history for their warlike exploits. They are well known to have rendered Cortez essential aid in taking the city of Mexico. This skull gives an internal capacity of 84 cubic inches, and like the others of this series, is remarkable for its diameter between the parietal bones.

It is worthy of remark that the average internal capacity of these six authentic Mexican skulls, is precisely what I have accorded to these people in my *Crania Americana*, viz., seventy-nine cubic inches. The mean of the facial angle also accords with my previous measurements, and gives  $75^{\circ}$ .

All these heads were obtained from tumuli or mounds, within the territories of the nations whose names they bear, so as to leave no doubt in the mind of the distinguished gentleman from whom I received them, of their having pertained to individuals of those nations.

The two remaining crania are supposed to be those of AZTECS, who also belonged to the confederacy of the seven tribes, but were the last to take possession. These were the people who subsequently obtained the supreme power, and under the name of Aztecs, or Mexicans, governed the country at the epoch of the Spanish invasion, A. D. 1521. The Aztecks were a brave and intelligent people, but remarkable for bloody rites, both in their warlike and religious observances. They were less cultivated than the Toltecas, but much more so than the surrounding barbarous tribes; and appear, in fact, to have been the connecting link between the two. The largest of these heads gives 85 cubic inches of internal capacity; the smallest 77; the medium being 80 cubic inches. The configuration of these heads is on the same

model as the preceding series, and the mean facial angle differs but a single degree.

Whoever will be at the pains to compare this series of skulls with those from the barbarous tribes, will, I think, agree that the facts thus derived from organic characters corroborate the position I have long maintained, that all the American nations, excepting the polar tribes, are of one race and one species, but of two great families, which resemble each other in physical but differ in intellectual character.

At a subsequent meeting of the Society, (August 9, 1842,) I exhibited the remains of a human skeleton found by Mr. J. L. Stevens in a vault or tomb at the ruins near Ticul, nineteen leagues from Merida, in Yucatan. These bones have pertained to a female, whose stature has not exceeded five feet three inches, at the same time that the absence of *epiphyses* and consequent consolidation of the bones are proofs of adult age. From the appearance of the teeth, however, which are fresh, and not sensibly worn, and a line or furrow marking off the crista of the ilium, it is presumed that this individual had not passed her twentieth year. The bones of the head, which are still partially separable at the sutures, are admirably characteristic of the *American Race*, as seen in the vertical occiput and the great inter-parietal diameter, which measures five inches and eight-tenths. The head is of full size, in proportion to the rest of the skeleton, of which the bones are of very delicate proportions, especially those of the feet and hands. An interesting feature of this skeleton is, the occurrence of a large spongy *node* on the upper and inner surface of the left tibia, on which it extends about two inches in length, an inch in breadth, and half an inch in thickness. Dr. Bridges having subjected some fragments of these bones to the usual chemical tests, found them in a very great degree deprived of animal matter—an additional evidence of their antiquity.\*

\* See Stephens; *Incidents of Travel in Yucatan*, vol. i., p. 281.

No. 2.

## REMARKS ON THE ANCIENT PERUVIANS.

(From the 8th vol. of the Journal of the Acad. of Natural Sciences of Philadelphia.)

In my work on American skulls, (*Crania Americana*,) I have expressed the opinion that the heads of the ancient Peruvians were *naturally* very much elongated; and that they differed in this respect from those of the Inca Peruvians, and other surrounding nations; and having given this opinion at a meeting of the Academy prior to the publication of my work, I take the present occasion to renounce it.

In the American Journal of Science, for March, 1840, I have already, in a brief note, adverted to this change of opinion; and I now repeat my matured conclusions, in connection with positive facts, derived from the work of a distinguished traveller and naturalist, M. Alcide D'Orbigny.

This gentleman not only visited the elevated table-land of the Andes, which was once inhabited by the ancient Peruvians, but he remained a long time in that interesting region, and has collected numerous facts in relation of the people themselves.

1. The descendants of the ancients Peruvians yet inhabit the land of their ancestors, and bear the name of Aymaras, which was probably their primitive designation.

2. The modern Aymaras resemble the surrounding Quichua or Peruvian nations in color, figure, features, expression, shape of the head, (which they have ceased to mould into artificial forms,) and in fact in every thing that relates to physical conformation and social customs. Their languages differ, but even here there is a resemblance which proves a common origin.

3. On examining the tombs of the ancient Aymaras, in the environs of the lake Tittcaca, M. D'Orbigny remarked that those which contained the compressed and elongated skulls, contained also a greater number that were not flattened; whence he infers

that the deformity was not natural, or characteristic of the nation, but the result of mechanical compression.

4. It was also remarked that those skulls which were flattened were uniformly those of men, while the heads of the women always retained the natural shape,—the squared or spheroidal form which is characteristic of the American race, and especially of the Peruvians.

5. The most elongated heads were found in the largest and finest tombs ; showing that the deformity was a mark of distinction among these people.

6. The researches of M. D'Orbigny confirm the statements made at distant intervals of time by Pedro de Cieza, Garcilaso de la Vega, and Mr. Pentland, and prove conclusively, what I have never doubted, that these people were the architects of their own tombs and temples ; and not, as some suppose, intruders, who had usurped the civilization, and appropriated the ingenuity of an antecedent and more intellectual race.

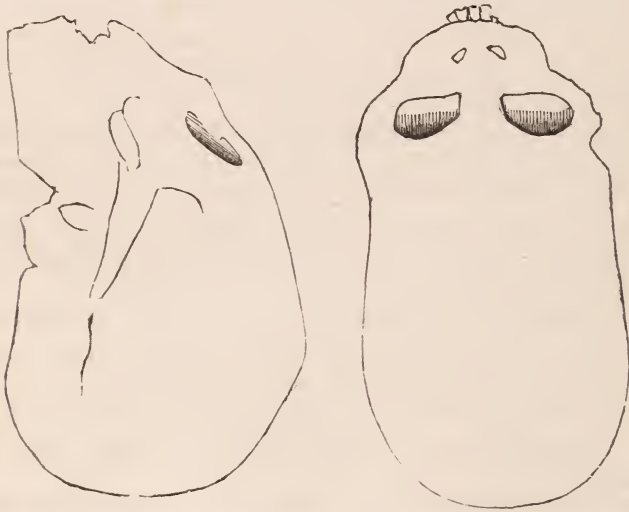
M. D'Orbigny found temples from 100 to 200 metres in length, facing the east, and ornamented with rows of angular columns ; enormous gateways made of a single mass of rock, and covered with bas reliefs ; colossal statues of basalt ; and large square tombs, wholly above ground, and in such numbers that they are compared to towns and villages.

My published observations go to show that the internal capacity of the cranium, as indicative of the size of the brain, is nearly the same in the ancient and modern Peruvians, viz., about seventy-six cubic inches — a smallness of size which is without a parallel among existing nations, excepting only the Hindoos.

M. D'Orbigny even supposes the ancient Peruvians to have been the lineal progenitors of the Inca family ; a question which is not yet decided. Supposing this to be the fact, we may inquire how it happens that the Incas should have abandoned the practice of distorting the cranium ; especially as this, among the Aymaras, was an aristocratic privilege ?

I was at first at a loss to imagine how this singular elongation of the head had been effected ; for when pressure is applied to a spher-

roidal head, as in the instance of the Chenouks and other tribes of the Columbia river, the skull expands *laterally* in proportion as it is depressed above; whereas, in these people, the head is narrow from the face to the occiput. It seems probable that this conformation was produced by placing splints or compresses on each side of the head from the cheek bones to the parietal protuberances, and another on the forehead, and confining them by rotary bandages. In this way the face, in the process of growth, would be protruded in front, and the head elongated backwards; while the skull, in all other directions, could expand comparatively little. These remarks will be more readily understood by reference to the annexed outlines, which are taken from a cast of one of the skulls obtained by Mr. Pentland.



Dr. Goddard has suggested to me that the deformity observable in this series of crania, might have been produced by the action of rotary bandages alone, without the use of splints or compresses. I admit the possibility of this result in some of the heads, but think that in others there is satisfactory evidence of the employment of the splint or compress, especially on the os frontis.



I have in my possession six casts of heads and three skulls of these people, all of which present the peculiarly elongated form in question.

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## No. 3.

REMARKS ON THE SO-CALLED PIGMY RACE OF THE  
VALLEY OF THE MISSISSIPPI.

(From the 8th vol. of the Journal of the Acad. of Natural Sciences of Philadelphia.)

It had long been contended by intelligent persons, who, however, were ignorant of Anatomy, that the adjusted bones of these pretended Pigmies never exceeded four feet and a half in length, and were often but three feet, notwithstanding the asserted indications of adult age. These statements made me desirous to investigate the subject by means of a skeleton of one of these people, which I at length obtained through the kindness of Dr. Troost, of Nashville; Dr. M'Call, an intelligent correspondent of Dr. Troost, having exhumed the remains from a "Pigmy cemetery" near the Cumberland Mountain, in White county, Tennessee.

"The coffins," observes Dr. M'Call, in his letter addressed to me, "are from 18 to 24 inches in length, by 18 inches deep, and 15 wide. They are made of six pieces of undressed sandstone or limestone, in which the bodies are placed with their shoulders and head elevated against the eastern end, and the knees raised towards the face, so as to put the corpse in a reclined or sitting posture. The right arm rested on an earthen pot, of about two pints in capacity, without legs, but with lateral projections for being lifted. With these pots, in some graves, are found basins and trays also of pipe clay and comminuted shells mixed; and no one of these repositories is without cooking utensils. In one of the graves was found a complete skull, and an os femoris, but most of the other bones were broke in hastily removing them. This is said to be the

largest skeleton ever found at any of these burying grounds. It has the cranium very flat and broad, with very projecting front teeth, and appears to have pertained to an individual not over twelve or fourteen years of age."

The bones which accompanied the letter indicate a very juvenile subject. For example, many of the deciduous or first teeth yet remain in both jaws; while the only teeth of the permanent set which have protruded, are the first molars and the incisors, which, as every anatomist knows, make their appearance at about seven years of age. Of the other permanent teeth, some have no part formed but the crown, and all are completely within the maxillary bones. The presence of the new incisors, isolated from the cuspidati which have not appeared, obviously gave rise to Dr. M'Call's remark respecting the very "projecting front teeth," but which, however, are perfectly natural in position and proportion. The cranial bones are thin, and readily separable at the sutures; nor does the *flat and broad* configuration of the cranium differ from what is common to the aboriginal American race. The long bones have their extremities separated by epiphyses; and every fact observed in these remains is strictly characteristic of early childhood, or about the eighth year of life. Even the recumbent or sitting posture in which they are found, has been observed in the dead bodies of the American nations from Cape Horn to Canada; and the utensils found with them are the same in form and composition with those exhumed from the graves of the common Indians.

These remains are to me an additional and convincing proof of what I have never doubted—viz., that the so-called Pigmies of the western country were merely children, who, for reasons not readily explained, but which actuate some religious communities of our own time, were buried apart from the adult people of their tribe.

## No. 4.

With respect to the Egyptians and Hindoos, as involved in this question, I can speak without reservation. Through the kindness of an accomplished gentleman and scholar, George R. Gliddon, Esq., late United States Consul at Cairo, I have received one hundred heads of Egyptian mummies from the tombs of Abydos, Thebes and Memphis, &c.; and I unhesitatingly declare, that, with a few exceptions, which have a mixed character, and chiefly resemble the Coptic form, the conformation throughout is that of the Caucasian race.

The following extracts from my *Crania Ægyptiaca*, just now published, appear to me to be conclusive on this point :

“It was remarked fifty years ago, by the learned Professor Blumenbach, that a principal requisite for an inquiry such as we now propose, would be “a very careful, technical examination of the skulls of mummies hitherto met with, together with an accurate comparison of these skulls with the monuments.” This is precisely the design I have in view in the following memoir, which I therefore commence by an analysis of the characters of all the crania now in my possession. These may be referred to two of the great races of men, the CAUCASIAN and the NEGRO, although there is a remarkable disparity in the number of each. The Caucasian heads also vary so much among themselves as to present several different types of this race, which may, perhaps, be appropriately grouped under the following designations :—

## CAUCASIAN RACE.

1. The *\*Pelagic Type*. In this division I place those heads which present the finest conformation, as seen in the Caucasian nations of western Asia, and middle and southern Europe. The

\* I do not use this term with ethnographic precision ; but merely to indicate the most perfect type of cranio-facial outline.

Pelasgic lineaments are familiar to us in the beautiful models of Grecian art, which are remarkable for the volume of the head in comparison with that of the face, the large facial angle, and the symmetry and delicacy of the whole osteological structure.

2. The *Semitic Type*, as seen in the Hebrew communities, is marked by a comparatively receding forehead, long, arched and very prominent nose, a marked distance between the eyes, a low, heavy, broad and strong and often harsh development of the whole facial structure.

4. The *Egyptian* form differs from the Pelasgic in having a narrower and more receding forehead, while the face being more prominent, the facial angle is consequently less. The nose is straight or aquiline, the face angular, the features often sharp, and the hair uniformly long, soft, and curling. In this series of crania I include many of which the conformation is not appreciably different from that of the Arab and Hindoo; but I have not, as a rule, attempted to note these distinctions, although they are so marked as to have induced me, in the early stage of the investigation, and for reasons which will appear in the sequel, to group them, together with the proper Egyptian form, under the provisional name of *Austral-Egyptian* crania.

#### NEGRO RACE.

The true *Negro* conformation requires no comment; but it is necessary to observe that a practised eye readily detects a few heads with decidedly mixed characters, in which those of the Negro predominate. For these I propose the name of *Negroid* crania; for while the osteological development is more or less that of the Negro, the hair is long but sometimes harsh, thus indicating that combination of features which is familiar in the mulatto grades of the present day. It is proper, however, to remark in relation to the whole series of crania, that while the greater part is readily referable to some one of the above subdivisions, there remain a few other examples in which the Caucasian traits predominate, but are partially blended with those of the Negro, which last modify both the structure and expression of the head and face.

The following is a Tabular View of the whole series of crania, arranged, in the first place, according to their sepulchral localities, and, in the second, in reference to their national affinities.

*Ethnographic Table of one hundred ancient Egyptian Crania.*

Sepulchral Localities.	No.	Egyptian.	Pelasgic.	Semitic.	Mixed.	Negroid.	Negro.	Idiot.
Memphis,	26	7	16	1	1	1		
Maabdeh,	4	1	1			2		
Abydos,	4	2	1	1				
Thebes,	55	30	10	4	4	5		2
Ombos,	3	3						
Philæ,	4	2	1				1	
Debôd,	4	4						
	100	49	29	6	5	8	1	2

No. 5.

### CLASSIFICATION OF THE HUMAN SPECIES.

The following classification is a slight modification of that published in my *Crania Americana*. The *Races* correspond with those in Prof. Blumenbach's system, which latter differs but little from that of Buffon. The subdivision into *Families* is based upon ethnographic analogies, both physical and philological.

#### I. CAUCASIAN RACE.

##### A. THE JAPETIC OR INDO-EUROPEAN BRANCH.

1. The Pelasgic or Caucasian Family.
2. The Germanic Family.
3. The Celtic Family.
4. The Indostanic Family.

## B. THE SEMITIC OR SYRO-ARABIAN BRANCH.

5. The Arabian Family.
6. The Hebrew Family.

## C. THE HAMITIC OR ÆGYPTO-LIBYAN BRANCH.

7. The Nilotic or Egyptian Family.
8. The Libyan Family.

## II. THE MONGOLIAN RACE.

9. The Mongol-Tartar Family.
10. \*The Turkish Family.
11. The Chinese Family.
12. †The Indo-Chinese Family.
13. The Polar Family.

## III. THE MALAY RACE.

14. The Malay Family.
15. The Polynesian Family.

## IV. THE AMERICAN RACE.

16. The American Family.
17. The Toltecan Family.

## V. THE NEGRO RACE.‡

18. The Negro Family.
19. The Caffrarian Family.
20. The Austral-African or Hottentot Family.
21. The Oceanic-Negro Family.
22. The Australian Family.

\*The Turks are a mixed family of the Caucasian and Mongolian races, in which the latter preponderates.

† The Indo-Chinese nations may yet prove to belong to the Malay race.

‡ Called the Ethiopian Race by Professor Blumenbach.